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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,044	11/16/2001	Tsutomu Uenoyama	34168	4449

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EXAMINER

SENF1, BEHROOZ M

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,044

Applicant(s)

UENOYAMA ET AL.

Examiner

Behrooz Senfi

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24 - 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24 - 29, 31 - 34, 36-39, 41-44 is/are rejected.
- 7) ☒ Claim(s) 30, 35, 40 and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/11/2005 has been entered.

Claims 1 – 23 has been canceled, and claims 24 – 45 are added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24, 25, 27 - 29, 31, 33 – 34, 36, 38 – 39, 41 and 43 - 44, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara et al (US 2003/0154687) or (US 6,567,554) in view of Ueda (US 6,647,060).

Regarding claim 24, Sugahara '687 discloses, "Picture coding Method" (i.e. fig. 4, abstract) including: inputting moving picture data having an arbitrary frame rate that is not known in advance" (fig. 4, input picture image 1, which is not known in advance) and "providing a target value for a buffer storage amount" (fig. 8, elements 6, 21 and 14), and "determining a buffer remaining amount of the coded picture data stored in the

Art Unit: 2613

buffer, and calculating a correction amount based on a difference of the target value and the buffer remaining amount" (figs. 8 and 9, units 5, 6, 14, 21 and 22, page 10, sections 0127 – 0133) shows "calculating unit 14 and controlling unit 21" which, in effect are used for allocating code amount based on the buffer (unit 6) occupancy, and "determining the buffer remaining amount" is part of the processing, in order for calculating and controlling amount of code, to avoid buffer underflow or overflow. Furthermore, correction code amount (as illustrated in fig. 9) would be based on the buffer occupancy, and "adding correction amount to the reference target code amount" (i.e. figs. 8 and 9), in which the target code amount is also determined based upon the reference target code amount (page 15, sections 0190 and 0193).

Sugahara '687 reference is silent in regards to "determining the input frame rate" as claimed.

However, the above features are well known and used in the prior art of video compression as evidenced by Ueda '060 (col. 3, lines 25 – 30), where teaches getting a frame rate of the input video image, to have an optimum frame rate in accordance with the input frame rate and a user specified compression level.

Taking the combined teaching of Sugahara '687 and Ueda '060 as a whole, it would have been obvious to one skilled in the art at the time of the invention was made to modify the encoding process of Sugahara '687 as taught by Ueda '060, to allow the video data to have an optimum frame rate in accordance with the input frame rate and a user specified compression level.

Regarding claim 25, combination of Sugahara '687 and Ueda '060 teaches, "target value is based on the input frame rate" (i.e. col. 110 – 14, col. 3, lines 25 – 60 of Ueda).

Regarding claim 27, combination of Sugahara '687 and Ueda '060 teaches, "providing a reference frame rate based upon the input frame rate" (col. 3, lines 28 – 30 Ueda), and "calculating a reference target code amount using the reference coding frame rate" (col. 3, lines 25 – 60, where target code amount is the maximum frame rate which is based on input frame rate and user desired frame rate of Ueda).

Regarding claim 28, combination of Sugahara '687 and Ueda '060 teaches, reference coding frame rate is determined based upon "a maximum value of the input frame rate" (col. 3, lines 35, effective input frame rate of Ueda).

Regarding claim 29, combination of Sugahara '687 and Ueda '060 teaches, "reference frame rate is determined based upon an average value" reads on (page 13, section 0160 Sugahara).

Regarding claim 31, the limitations as claimed, has been analyzed and rejected with respect to claims 24 and 27.

Regarding claim 33, the limitation, reference coding frame rate is determined based upon "a maximum value of the input frame rate" as claimed, has been analyzed and rejected with respect to claim 28.

Regarding claim 34, the limitation, "reference frame rate is determined based upon an average value" as claimed, has been analyzed and rejected with respect to claim 29.

Regarding claim 36, the limitations as claimed, has been analyzed and rejected with respect to claims 24 and 31. the additional limitation "coding the moving picture data into coded picture data for storage in a buffer prior to outputting the coded picture data" see (fig. 10, 117 and 115 of Ueda, and fig. 8 of Sugahara).

Regarding claim 38, the limitation, reference coding frame rate is determined based upon "a maximum value of the input frame rate" as claimed, has been analyzed and rejected with respect to claim 28.

Regarding claim 39, the limitation, "reference frame rate is determined based upon an average value" as claimed, has been analyzed and rejected with respect to claim 29.

Regarding claim 41, the limitations as claimed, has been analyzed and rejected with respect to claim 35.

Regarding claim 43, the limitation, reference coding frame rate is determined based upon "a maximum value of the input frame rate" as claimed, has been analyzed and rejected with respect to claim 28.

Regarding claim 44, the limitation, "reference frame rate is determined based upon an average value" as claimed, has been analyzed and rejected with respect to claim 29.

4. Claims 26, 32, 37 and 42, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugahara '687 and Ueda '060 further in view of Chujoh et al (US 5,416,521).

Regarding claim 26, combination of Sugahara '687 and Ueda '060, is silence in

Art Unit: 2613

regards to "frame skipping threshold".

However the above claim feature is well known and used in the prior art of the record as evidenced by Chujoh '521 (fig. 5, frame skipping decision making unit 16). Taking the combined teaching of Sugahara '687 and Ueda '060 and Chujoh '521 as a whole, it would have been obvious to one skilled in the art at the time of the invention was made to modify the video coding apparatus of Sugahara and Ueda with frame skipping decision making as taught by Chujoh (col. 5, lines 34 – 43 and col. 8, lines 16 – 25) to maximize the coding performance without picture degradation.

Regarding claims 32, 37 and 42, the limitation "frame skipping threshold" as claimed, has been analyzed and rejected with respect to claim 26 above.

Allowable Subject Matter

5. Claims 30, 35, 40 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance: The prior art of the record fails to anticipate or rendered obvious the limitations "updating the reference coding frame rate, wherein, when the reference coding frame rate before being updated is larger than the reference coding frame rate after being updated, a value between the reference coding frame rate before being updated and the reference coding frame rate after being updated is used as an updated reference coding frame rate" as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571) 272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mehrdad Dastouri** can be reached on **(571) 272-7418**.

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, Va. 22314.

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(571) 272-6000**,

Or faxed to:

(571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

Art Unit: 2613

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

B.M.S. 

10/29/2005


VULE
PRIMARY EXAMINER